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TECHNICAL IMPLEMENTATION NOTICE 07-51...AMENDED  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
1112 AM EDT TUE SEP 18 2007

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER  
WIRE SERVICE /NWWS/ SUBSCRIBERS...EMERGENCY MANAGERS  
WEATHER INFORMATION NETWORK /EMWIN/SUBSCRIBERS...  
OTHER NATIONAL WEATHER SERVICE /NWS/ PARTNERS AND  
OTHER USERS...NWS EMPLOYEES

FROM: PAUL HIRSCHBERG  
CHIEF...SCIENCE PLANS BRANCH  
OFFICE OF SCIENCE AND TECHNOLOGY /OST/

SUBJECT: AMENDED: UPGRADE TO NOAA WAVEWATCH III MODEL:  
EFFECTIVE SEPTEMBER 25 2007

REFER TO: TECHNICAL IMPLEMENTATION NOTICE /TIN/ 07-51  
TRANSMITTED ON AUGUST 2 2007 AND AMENDED TIN 07-51  
TRANSMITTED ON SEPTEMBER 17 2007.

AMENDED TO POSTPONE THE IMPLEMENTATION DATE TO SEPTEMBER 25 2007.

THIS TIN WAS ORIGINALLY AMENDED ON SEPTEMBER 17 2007 TO INFORM  
USERS THAT THE REGIONAL WAVE PRODUCTS WILL BE DELAYED BY 15  
MINUTES ONCE THIS IMPLEMENTATION BECOMES EFFECTIVE. THE  
TIMELINESS OF THE GLOBAL WAVE PRODUCTS WILL NOT BE IMPACTED.

EFFECTIVE TUESDAY SEPTEMBER 25 2007...WITH THE 1200 COORDINATED  
UNIVERSAL TIME /UTC/ RUN...THE NATIONAL CENTERS FOR ENVIRONMENTAL  
PREDICTION /NCEP/ WILL UPGRADE THE NOAA WAVEWATCH III /NWW3/  
MODEL.

THE FOLLOWING CHANGES BELOW WILL BE INCORPORATED INTO THE NWW3  
MODEL SYSTEM:

1. A MULTI-GRID GLOBAL MODEL THAT PROVIDES FORECAST PRODUCTS  
ON SEVERAL DIFFERENT GRIDS. ALL THE GRIDS HAVE INTERNAL  
TWO-WAY COUPLING AND EXCHANGE INFORMATION DURING THE  
COMPUTATION CYCLE. THE NEW GRIDS ARE:
  - A. A 30 MINUTE RESOLUTION GLOBAL GRID.
  - B. THREE 10 MINUTE RESOLUTION REGIONAL GRIDS COVERING THE  
UNITED STATES /US/ EAST/WEST COASTS AND EASTERN  
PACIFIC ISLANDS INCLUDING HAWAII.
  - C. AN ALASKA REGIONAL GRID WITH A 15 MINUTE RESOLUTION IN  
LONGITUDE AND A 10 MINUTE RESOLUTION IN LATITUDE.
  - D. TWO 4 MINUTE RESOLUTION COASTAL GRIDS FOR THE US  
EAST/WEST COASTS. THE US WEST COAST GRID ALSO  
INCLUDES THE COASTAL WATERS OF THE HAWAIIAN ISLANDS.

- E. AN ALASKAN COASTAL GRID WITH A RESOLUTION OF 8 MINUTES IN LONGITUDE AND 4 MINUTES IN LATITUDE.
2. FIELD OUTPUT WILL BE AVAILABLE IN GRIB2 FORMAT.
3. THE ENERGY SPECTRUM WILL BE PROPERLY PARTITIONED. THE FOLLOWING ADDITIONAL OUTPUT GRIDS WILL BE AVAILABLE:
  - A. PARTITIONED WAVE HEIGHT DATA FOR WIND SEAS-KPDS ID=102  
PRIMARY SWELLS-KPDS ID=105-LEVEL 1  
SECONDARY SWELLS-KPDS ID=105-LEVEL 2
  - B. PARTITIONED PEAK PERIOD DATA FOR WIND SEAS-KPDS ID=103  
PRIMARY SWELLS-KPDS ID=106-LEVEL 1  
SECONDARY SWELLS-KPDS ID=106-LEVEL 2
  - C. PARTITIONED MEAN DIRECTION FOR WIND SEAS-KPDS ID=101  
PRIMARY SWELLS-KPDS ID=104-LEVEL 1  
SECONDARY SWELLS-KPDS ID=104-LEVEL 2
4. MINOR CHANGES TO THE PHYSICS INCLUDING:
  - A. LINEAR WAVE GROWTH TERM TO IMPROVE INITIAL WAVE GROWTH RESULTS
  - B. A SURF ZONE BREAKING TERM TO PROVIDE MORE REALISTIC ESTIMATES OF WAVE HEIGHT FOR LAND FALLING TROPICAL SYSTEMS.
5. THE FORECAST RUN WILL NOW START NINE FORECAST HOURS PRIOR TO THE ORIGINATING TIME OF THE CYCLE AS OPPOSED TO SIX HOURS PRIOR ALLOWING FOR THREE ADDITIONAL HOURS OF ASSIMILATION. FORECAST OUTPUT CONTINUES OUT TO 180 HOURS.

THIS UPGRADED FORECAST SYSTEM WILL BE USED TO REPLACE THE CURRENT GRIDDED OUTPUT OF THE NOAA WAVEWATCH III MODELING SYSTEM. THE FOLLOWING GRIDS...WHICH ARE AVAILABLE ON NOAAPORT...WILL BE IMPACTED BY THE UPGRADE MODELING SYSTEM:

EASTERN NORTH PACIFIC /ENP/  
WESTERN NORTH ATLANTIC /WNA/  
ALASKAN WATERS /AKW/

THE PRODUCTS/GRIDS WHICH ARE DISSEMINATED TO NOAAPORT AND/OR THE SATELLITE BROADCAST NETWORK /SBN/ WILL NOT BE CHANGED IN VOLUME OR CONTENT.

IF YOU HAVE ANY QUESTIONS CONCERNING THESE CHANGES...PLEASE CONTACT:

HENDRIK TOLMAN  
NCEP/EMC...CHIEF MARINE MODELING BRANCH  
CAMP SPRINGS MARYLAND  
PHONE: 301 763 8000 X7253  
EMAIL: HENDRIK.TOLMAN@NOAA.GOV

THIS AND OTHER NWS TECHNICAL IMPLEMENTATION NOTICES ARE AVAILABLE

ONLINE AT /USE LOWER CASE LETTERS/:

[HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM](http://www.nws.noaa.gov/om/notif.htm)

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